City of San Diego
Development Services Department
Plan Review Division
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Building Newsletter 5-1

Construction Requirements for Contiguous Dwelling Units

One of the basic principles of building code regulation is that buildings should be separately constructed and fire-protected when they are, or if they can be, under separate ownership. If a property line is defined by a recorded subdivision map, the Uniform Building Code requires that buildings on both sides of that property line be structurally independent with individual fire-resistive protection based on the distance to property line. This avoids restrictions on one parcel and/or ownership because of conditions existing on an adjoining parcel and/or ownership. Each owner is allowed maximum latitude in the development of his/her property with the assurance of maximum protection from incidents involving mishap from and liability to adjoining property.

I. Examples of Contiguous Dwelling Units

A. Case 1 concerns abutting single-family dwellings. The two dwelling units illustrated in Figure 1 are located on separate parcels of property and may be under separate ownership. This is a typical arrangement of dwelling units in multi-family and RV zones where no side yard is required on one side of the property. Walls BE and CD, facing private property lines, shall comply in the same manner as any wall facing a property line. Wall AB must comply as a unit separation wall as defined in this building newsletter.

B. Case 2 concerns Planned Residential Developments (PRDs). The multiple dwelling unit building with an interior property line between units, as shown in Figure 2, is a typical arrangement in a Planned Residential Development. It should be noted that although walls FG, FA and GD are located on property lines, these walls face the common property of the PRD. In this case, the common property may be considered an open yard for determining the fire-resistive requirements of walls FG, FA, GD and similar walls. Walls BE and CD, facing private property lines, shall comply in the same manner as any wall facing a property line. Wall AB must comply as a unit separation wall.

C. Case 3 concerns condominiums. The multiple dwelling unit building shown in Figure 3 has no interior property lines between units and illustrates the condominium ownership situation. Such buildings are under one ownership and shall comply with the following four provisions:

1. The structure shall be treated as one building.
2. The building shall comply as a Group R, Division 1 Occupancy if it contains three or more dwelling units. If it contains only two dwelling units, it shall comply as a Group R, Division 3 Occupancy.
3. When area separation walls are required, they shall comply fully with Section 504.6 of the Uniform Building Code.

Figure 1/Abutting single-family dwellings

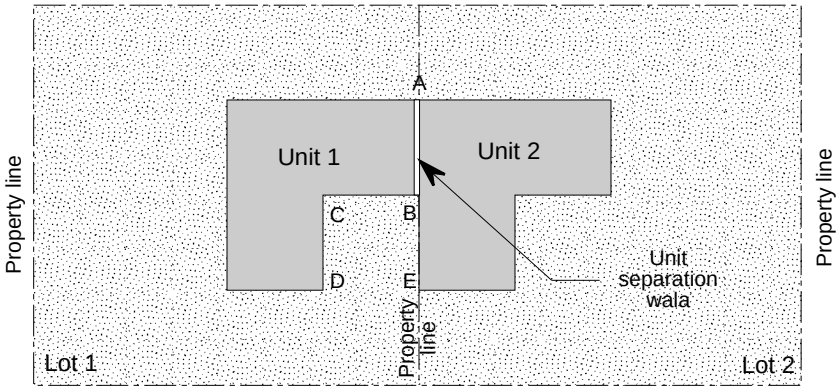
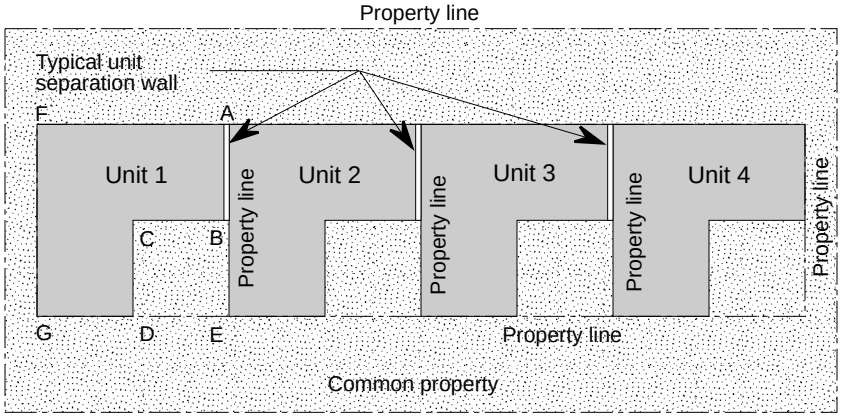


Figure 2/Planned residential developments



4. All plumbing, heating, ventilation, air conditioning and electrical systems may be installed as permitted for an R-1 Occupancy (R-3 Occupancy where only one or two units are contained within separate buildings). All gas meters shall be located together as required by SDG&E and Chapter 12 of the Uniform Plumbing Code.

The situations described in Case 1 and Case 2 shall comply with the following general requirements along with either Method 1, Method 2 or Method 3 for unit separation wall construction. See pages 4, 5 and 6.

II. General Requirements

A. Separate combination building permits are required for each dwelling unit. Plans shall clearly show the locations of all property lines.

B. Each dwelling unit shall comply as a Group R, Division 3 Occupancy.

C. The units must be structurally independent of each other except that a common footing may be used at a unit separation wall such as wall AB (Figures 1 and 2). See Figure 4 for footing requirements.

D. Roof termination shall be constructed as shown in Figure 5. Eaves may not project over the property line.

Figure 3/Condominiums

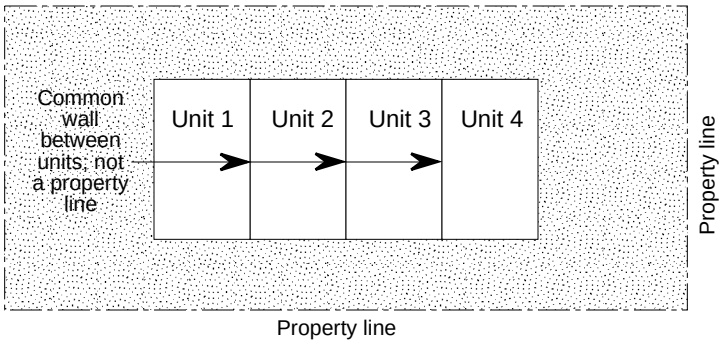


Figure 4/Footing requirements

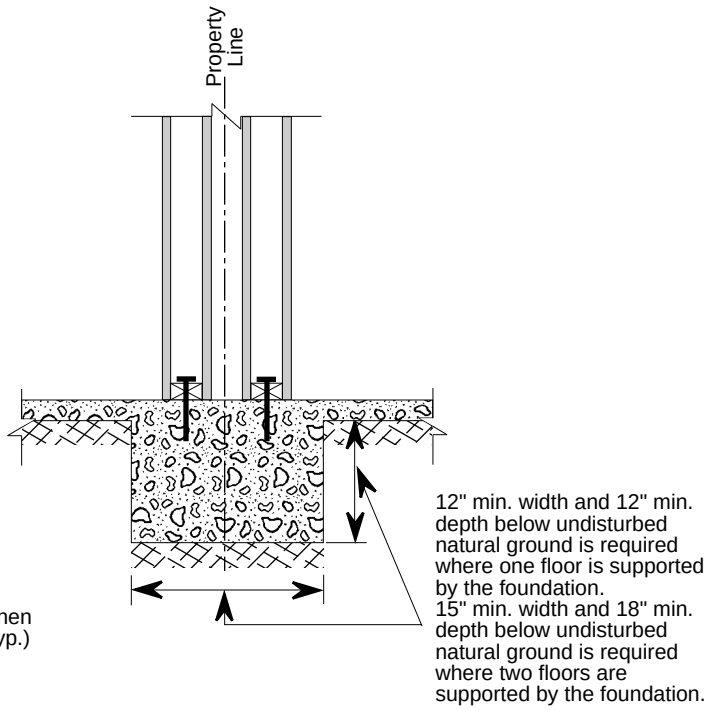


Figure 5/Roof termination

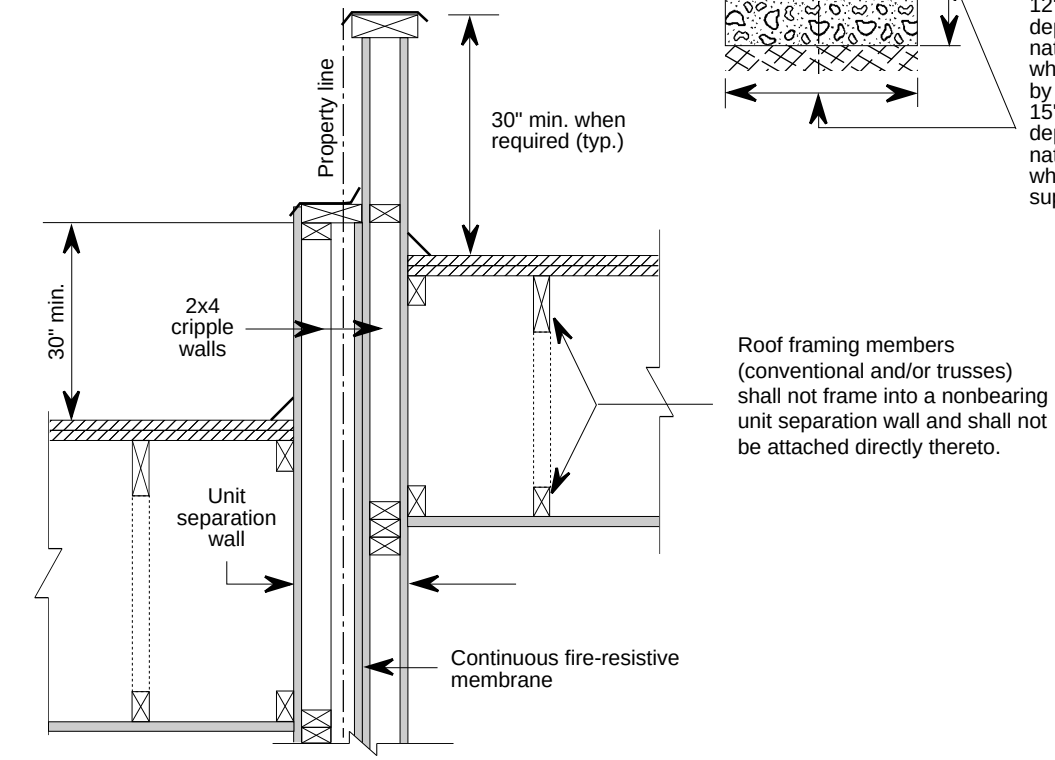
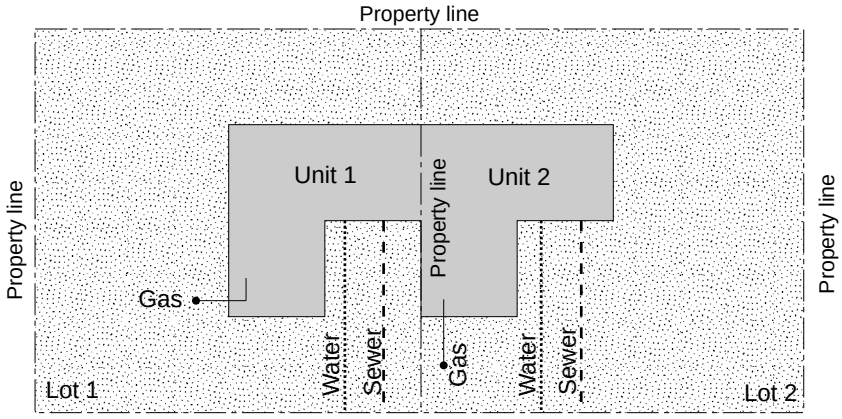


Figure 6/Sewer, water and gas in other than PRDs



E. Thirty-inch-high parapets shall be provided on each side of the property line when required by Section 709.4 of the UBC.

F. The property line wall from B to E (Figures 1 and 2) shall be of one-hour fire-resistive construction to the roof sheathing and shall be provided with a 30-inch-high parapet in accordance with Section 709.4 of the UBC.

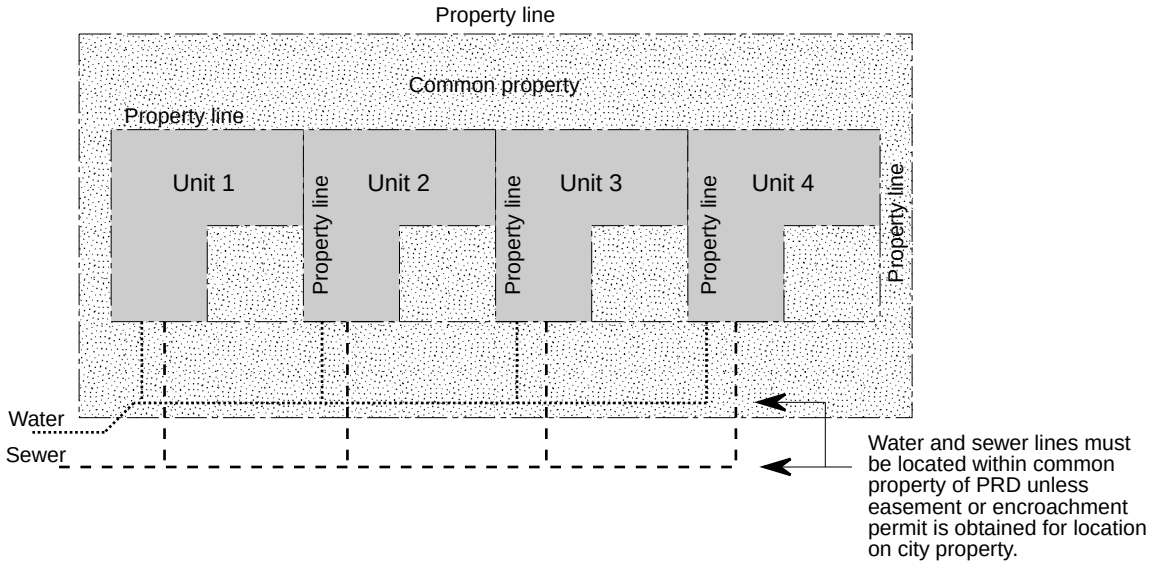
G. The type of construction of the wall from C to D (Figures 1 and 2) depends upon the distance from the wall to the property line and shall be fire-protected in accordance with Table No. 5-A of the UBC.

H. All heating, air conditioning and related ventilation systems for each living unit must be completely independent of systems serving all other living units and must be located entirely within the living unit and individual lot served.

I. Connection to public utility and disposal systems shall meet the following requirements:

1. It shall be noted on the approved plans that the location of all plumbing, gas, and water lines, air vents and flue gas vents proximate to unit separation walls shall comply with the provisions of this building newsletter for the specific case involved.
2. All drainage, waste and related ventilation systems, as well as gas piping systems for each living unit must be completely independent of systems serving all other living units and must be located entirely within the living unit and individual lot served.

Figure 7/Sewer, water and gas in PRDs



Unit Separation Wall Construction

Method 1

Figure 8/Plan view

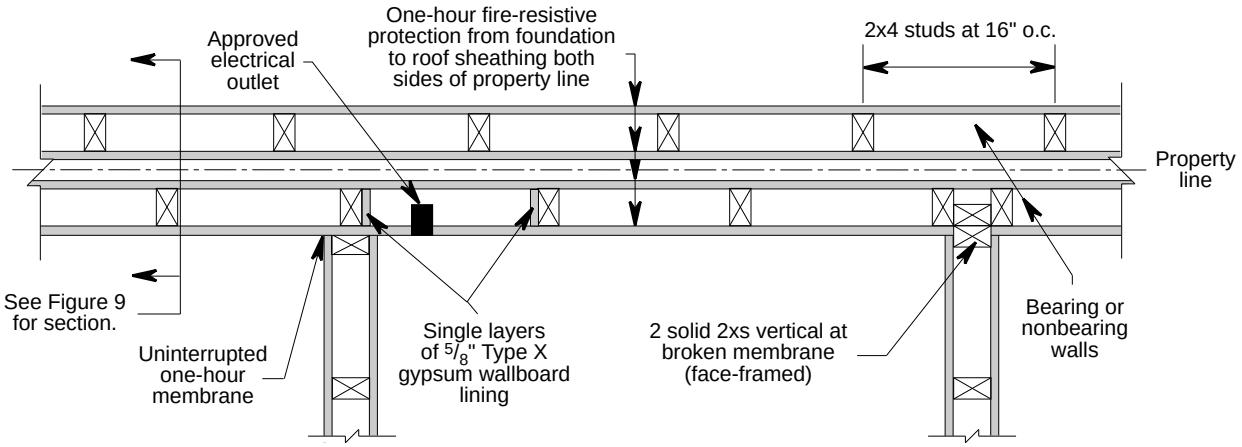
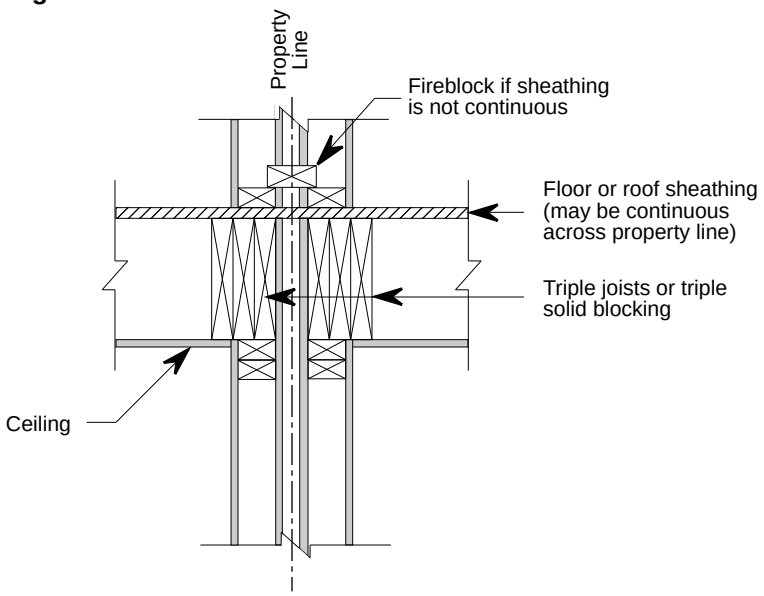


Figure 9/Section



3. In other than PRDs, the sewer, water service and gas systems of each individual lot shall be independently connected to city or public utility systems. Such sewer, water or gas systems shall be located so that they do not cross any other private property, except that such sewer, water or gas systems, when located outside the perimeter of a building, may cross other private property when evidence of recorded easements is provided. See Figure 6.
4. For PRDs only, in lieu of connecting the sewer and water service lines of each living unit independently to the city sewer and water mains, such lines may be connected independently to main sewer and water lines within the commonly owned property of the PRD. See Figure 7.

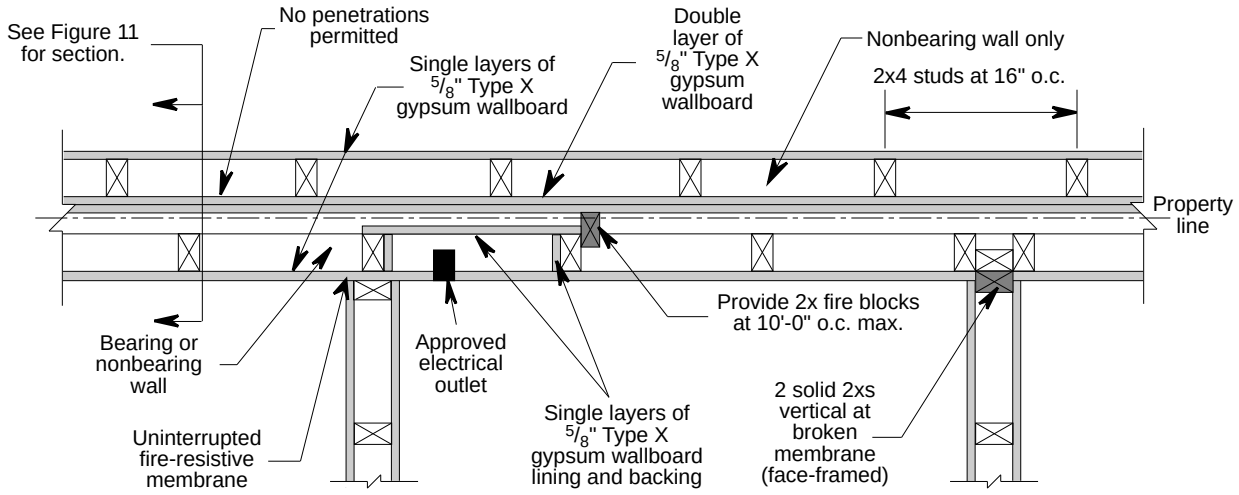
J. All electrical systems and services for each living unit must be completely independent of such systems and services serving all other living units and must be located entirely within the living unit and individual lot served.

K. It is suggested that a preconstruction conference be held between the contractor and Building Inspection Department staff to resolve any questions concerning the construction of contiguous dwelling units.

Unit Separation Wall Construction

Method 2

Figure 10/Plan view



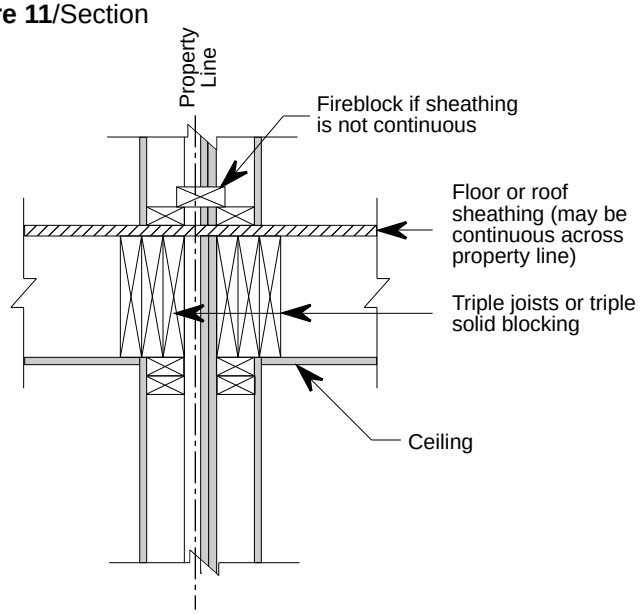
III. Unit Separation Wall Construction

A. Unit separation walls must extend from the foundation to a point at least 30 inches above the roof when a parapet is required per Section 709.4 of the UBC. When no parapet is required, the unit separation wall must extend from the foundation to the underside of the roof sheathing.

The following methods are acceptable for unit separation wall construction:

1. Method 1: Two separate one-hour fire-resistive walls, one on each side of the common property line, shall be provided. See Figures 8 and 9. Metal or approved plastic pipe and fittings may be used to penetrate the fire-resistive membrane on the living unit sides of the wall. Note: At the present time there is no plastic pipe approved for this application.
2. Method 2: For nonrated buildings a double stud wall constructed in the manner indicated in Figures 10 and 11 shall be permitted. Only metal pipe and fittings shall be used where penetrations of the fire protection on the living unit sides of the wall occur. Plumbing traps adjacent to the wall shall also be of metal.
3. Method 3: For nonrated buildings, a double stud wall constructed as illustrated in Figures 12 and 13 will be permitted in accordance with the approval of the Board of Appeals and Advisors in Case 7110. Although similar in construction, this type of wall should not be construed as an area separation wall. No penetrations shall be permitted.

Figure 11/Section



Exception 1: Electrical outlet boxes of metal are permitted provided they are enclosed with approved firestopping and a one-hour fire-resistive backing material as illustrated in Figures 8, 10, 11 and 12.

Exception 2: Where walls are penetrated by other materials, they shall have been qualified by tests conducted in accordance with the UBC Standard No. 7-5.

B. In order to avoid an unacceptable breach in protection, trusses which are framed perpendicular to the unit separation wall shall be top chord-bearing. If this is not possible, some adequate means of extending the wall to the underside of the roof sheathing (or to the top of the parapet when required) must be found.

Unit Separation Wall Construction

Method 3

Figure 12/Plan view

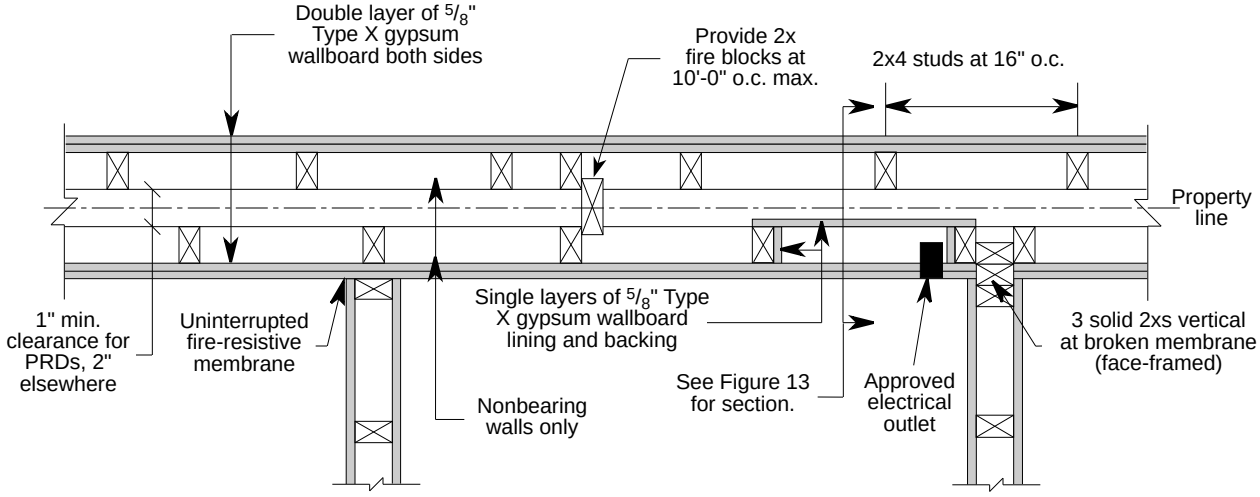


Figure 13/Section